HPNS Technical Team Meeting Agenda
EPA Region 9
75 Hawthorne Street, San Francisco, CA
September 12, 2017 - 10:00 to ~4:00

1. Welcome and check-in

   Navy BRAC – Pat Brooks, Danielle Janda, ~~Derek Robinson~~, Thomas Macchiarella
   Navy BRAC Consultants – Scott Hay, Kim Henderson, ~~Kathy Higley, Kira Sykes~~, Craig Bias
   RASO – ~~Zach Edwards~~, Matt Slack
   EPA and consultants – Karla Brasaemle, ~~John Chesnutt,~~ Jana Dawson, David Kappelman, Lily Lee, ~~Lyndsey Nguyen~~, Anita Singh, Donna Getty, Brianna Fairbanks
   DTSC – Nina Bacey, ~~Janet Naito~~
   CDPH – Tracy Jue, Sheetal Singh
   City (includes OCII/SFDPH and consultants) – Amy Brownell, Bob Burns, Christina Rain
   Water Board – ~~Tina Low, Tina Ures~~
   NRC – Richard Chang

2. Review meeting objective: Working meeting to review and discuss methodology and evaluation of HPNS building scan data.
   - A presentation was reviewed real-time.
3. Review building survey approach and available data
   - 26 buildings are currently on the list for evaluation and this comprises 100% of buildings scanned by TtEC
     - Amy indicated that Building 322 is included on the list but the building and associated soil was removed and disposed and the soil beneath the building was scanned prior to placement of a new roadway and sidewalk in 2004, prior to the first allegation in 2006. Building 813 was also not likely contaminated and Building 819 was a pump house for the sewer system. She requested these buildings be evaluated first, but only if appropriate.
   - Available data and information include:
     - MS Access database provided by TtEC with two tables of alpha/beta survey data, one table appears to be the original data and the second table appears to be rescan data
     - FSSRs, RACRs, and Characterization Reports
   - An overview of the approach for collecting the static and scan data was reviewed.
4. Discuss methodologies for data evaluation and initial findings
   - The preliminary methodologies to evaluated the three primary allegations and examples of findings were reviewed and discussed.
     - Scan speed
       - To evaluate scan speed, logic tests were developed:
         - Is calculated scan speed at or less than design scan speed at FSSR-specified scan coverage?
         - Is calculated scan coverage at or greater than design scan speed at FSSR-specified scan coverage?

- The tests were demonstrated successfully on examples. For example, data from a survey unit in Building 366 was reviewed and revealed that if the detector was in motion at 1.37 cm/s, there are only enough data points to cover 41% of the floor area, failing logic tests.

- Detector in motion
  - To evaluate detector movement, logic tests were developed:
    - Does scan data match a normal cumulative frequency distribution (CDF) with same mean and standard deviation?
    - Is there a significant deviation from normal standard deviation?
    - Does static data come from same population as scan data?
  - The first two logic tests were tested and determined to be inconclusive and unsuccessful to definitively confirm or deny whether the detector was in motion. The third test has not been yet been evaluated.
- Data manipulation
  - To evaluate for potential data manipulation, logic tests were developed:
    - Are intervals between consecutive reading numbers in database consistent with design scan time interval?
    - Is order of readings same in database as FSSR?
    - Is same detector used during same time period?
    - Are there duplicated sets of data with respect to time, # data points, duration of breaks, etc.?
  - The tests were demonstrated successfully on examples. For example, data from a survey unit at Building 366 had intervals (excluding breaks) consistent with an 11.8 second scan time interval and passed the first logic test. However, the survey unit failed the remaining logic tests. For the second logic test, wall data readings were consecutive in the database but staggered in the FSSR. For the third logic test, the scan system ID was identified as being used on the same date during the same time period for different reading numbers. For the last logic test, a query was run to identify a minimum of 9-duplicated data strings and the query identified 80 instances where a minimum of 9-value data strings was duplicated. The instances were contiguous resulting in two sets (48 values each) of repeated data.
  - The repeated numbers query, to search for duplicated 9-value strings both forward and backward numerically, was run on the available building alpha and beta scan data. The query results found 10 buildings that had replicated strings of data which involved 20 of the over 850 total survey units. A summary table was provided and reviewed. The Team discussed whether 9 values were sufficient and discussed whether the test should include evaluation of duplicated numbers that are not in series.

- Path Forward
  - The Team discussed the usefulness of the TtEC data, data quality, and the path forward for either continuing with the evaluation or conducting rescoping surveys. Matt indicated that a large volume of data has been collected, CDPH conducted confirmation surveys and collected 10% static data, and available data can be used to make decisions on the level of resurveying for scoping MARSSIM surveys. The previous decisions and surveys were conservative and 90% of the building surveys should have been Class 3. He recommended looking at each building uniquely to determine how to classify a release survey. Craig discussed using the CDPH data to help make decisions on the path forward. Because decisions are made based on the static data, TtEC and CDPH data could be further evaluated

to determine whether they were collected from the same population as the scan data to help determine the usefulness of TtEC's static data. Lily questioned the data quality and although several potential data quality issues were identified, the assumption for this project is that data quality is acceptable if methodology was followed per the TSP and data quality is not being assessed.

- The Team decided that based on the schedule and the ultimate goal of safety for human health and the environment for property transfer, rather than conducting further data evaluation that time would be better spent developing a list of buildings, using the HRA to design surveys, and rescanning buildings. A scoping/characterization survey could be conducted to collect new static survey data in all the buildings to support classification. The grid for the scoping survey could be shifted from where TtEC and CDPH collected data to increase coverage. The static data would be used to redesign a FSS. The data evaluation was put on hold unless the Navy legal requests further evaluation.

5. Schedule and topics for future calls
   - Next call: Tuesday 9/19, 1000-1100 AM PT
   - Potential future topics:
     i. Parcel G data evaluation results
     ii. Sampling efficiencies